



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

MINI FILE  
THESE  
SR

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

July 22, 1987

TO: The Board of Oil, Gas and Mining  
THRU: Lowell P. Braxton, Program Administrator *LOB*  
FROM: Frank Jensen, Reclamation Soil Specialist *Frank Jensen*  
RE: Bond Reduction, Chevron Resources Company, Vernal Phosphate  
Operation, ACT/047/007

Please refer to the attached memorandum concerning the reclamation work on the subject case.

Board concurrence is hereby requested to reduce Chevron's bond by \$887,000 as follows:

Current Bond	\$4,700,000
Proposed Bond Release	<u>\$ 887,000</u>
Proposed New Bond	\$3,813,000

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1212R/43




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July 22, 1987

TO: Frank Jensen, Reclamation Soil Specialist  
FROM: Frank J. Filas, Reclamation Engineer   
RE: Calculation of Bond Release, Vernal Phosphate Mine, M/047/007

I. Full Bond Release - 270.5 Acres

Description	Acres	Adjusted* Cost/Acre	Total
Panel A (1975-1983)	83.0	\$2396	\$198,868
Panel A (1983-Present)	124.0	2396	297,104
Panel C	45.0	2396	107,820
Misc. Areas	18.5	1668	30,858
Total	270.5		\$634,650

II. Partial Bond Release - 127 Acres

Description	Acres	Adjusted* Cost/Acre	Revegetation Cost/Acre	Release Cost/Acre	Total
Panel C	73	\$2396	\$411	\$1985	\$144,905
Camp Canyon	54	2396	411	1985	107,190
Total	127				\$252,095

\*1985 cost/acre adjusted for 3.79 percent inflation factor and 15 percent contingency.

III. Total Amount of Bond Release

Full	\$634,650
Partial	252,095
Total	\$886,745

Rounded to Nearest \$1000 = \$887,000

IV. New Bond to be Posted

Current Bond	\$4,700,000
Bond Release	887,000
New Bond	\$3,813,000

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1212R/44



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July 22, 1987

TO: File

FROM: Frank Jensen, Soils Reclamation Specialist *Frank Jensen*

RE: Chevron Resources Company, Vernal Phosphate Operation,  
M/047/007

On May 19, 1987, Bruce E. Gilbert of Chevron and I ran five vegetation transects on areas that had been revegetated three to four years on the phosphate mined areas.

According to the files, the premining ground cover was 18 percent under the Utah juniper type and 26 percent under the sagebrush-grass type. Agreement had been reached to average the two for a 22 percent ground cover figure. To achieve bond release, 70 percent of the premining ground cover, i.e., 15 percent ground cover, needs to be reestablished.

All of the areas that have been reseeded the required three years exceed this requirement. Vegetation ground cover averaged 31 percent on the five transects we ran. Thus Chevron Resources is eligible for full bond release on 270.5 acres. They are also eligible for partial bond release on 127 acres that have been reseeded but have not had three years to become fully established.

Mr. Gilbert submitted a map on July 16, 1987, showing the status of reclamation. It is as follows:

1. Pre 1975 (mostly reclaimed)	251.0 acres
2. Previously released	21.0 acres
3. Proposed for full release now	270.5 acres
4. Proposed for partial release now	127.0 acres

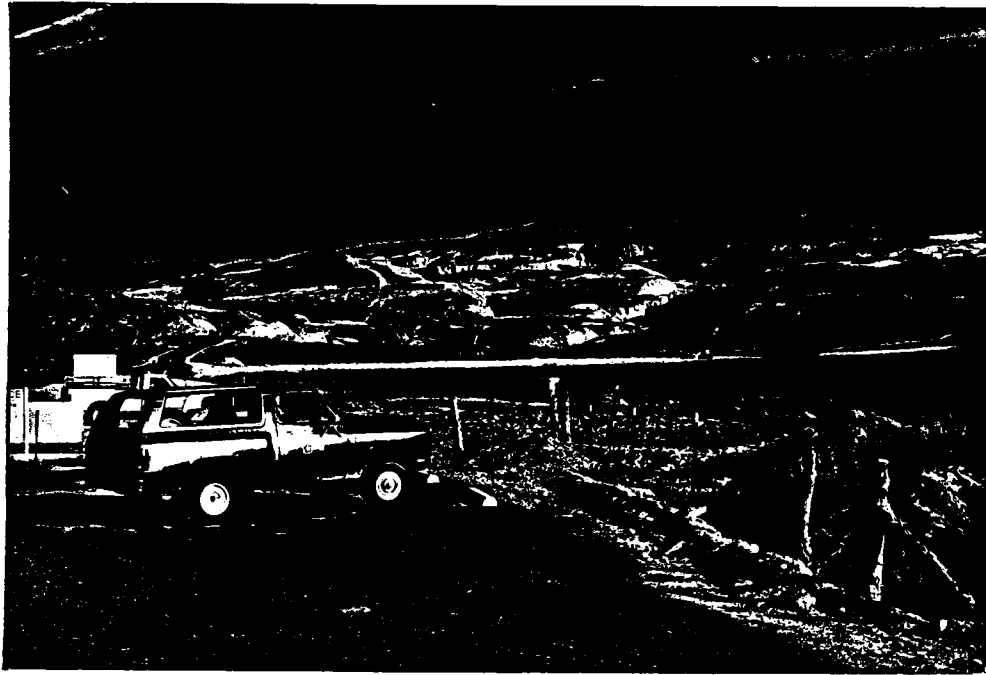
I concur with this request, and recommend 270.5 additional acres be fully released from bond and 127 acres be partially released.

A summary of the transects is attached.

clj

cc: L. Braxton  
Chevron Resources

1212R/3



Chevron Resources - Vernal Phosphate Mine



Transect #1 - Reclaimed area - May 12, 1987 - Bruce E. Gilbert  
in photo - Transect ran with 36-inch diameter hoop.

<u>Vegetation</u>	<u>Percent</u>
Int./pub. wheatgrass	5
Bluebunch wheatgrass	5
Western wheatgrass	6
Milkvetch	3
Alfalfa	6
Clover	2
Big sagebrush	<u>Trace</u>
Vegetation ground cover	27
Litter	8
Rock/pavement	10
Bare ground	<u>55</u>
Total	100



Transect #2 - Reclaimed Area - May 12, 1987

<u>Vegetation</u>	<u>Percent</u>
Bluebunch wheatgrass	3
Int./pub. wheatgrass	2
Western wheatgrass	1
Clover	1
Milkvetch	2
Alfalfa	<u>23</u>
Vegetation ground cover	32
Litter	5
Rock/pavement	55
Bare ground	<u>8</u>
Total	100



Transect #3 - Reclaimed Area - May 12, 1987

<u>Vegetation</u>	<u>Percent</u>
Bluebunch wheatgrass	5
Int./pub. wheatgrass	3
Western wheatgrass	2
Alfalfa	19
Milkvetch	<u>10</u>
Vegetation ground cover	39
Litter	18
Rock/pavement	22
Bare ground	<u>21</u>
Total	100



Transect #4 - Reclaimed Area - May 12, 1987

<u>Vegetation</u>	<u>Percent</u>
Int./pub. wheatgrass	15
Alfalfa	10
Milkvetch	<u>2</u>
Vegetation ground cover	27
Litter	1
Rock/pavement	13
Bare ground	<u>59</u>
Total	100





Transect #5 - Reclaimed Area - May 12, 1987

<u>Vegetation</u>	<u>Percent</u>
Int./pub. wheatgrass	12
Bluebunch wheatgrass	1
Indian ricegrass	1
Western wheatgrass	1
Alfalfa	15
Milkvetch	1
Clover	<u>1</u>
Vegetation ground cover	32
Litter	8
Rock/pavement	11
Bare ground	<u>49</u>
Total	100

Summary - The five transects averaged 31 percent ground cover

Recommendation - The following recommendations were discussed with Bruce Gilbert:

1. Try to get some browse on the area, i.e., bitterbrush and fourwing saltbrush.
2. Substitute crested wheatgrass for intermediate/pubescent wheatgrass on the drier sites - it will do better.
3. On the real harsh sites, try some rabbitbrush (white stem).